Assessing and Planning for Human Resources for Health Toward More Sustainable Antiretroviral Therapy Treatment and HIV Counseling and Testing Services

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Abt Associates Inc.
In collaboration with:
I Aga Khan Foundation I Bitrán y Asociados
I BRAC University I Broad Branch Associates
I Deloitte Consulting, LLP I Forum One Communications
I RTI International I Training Resources Group
I Tulane University's School of Public Health

Background

- Decline/flat-lining of donor HIV funding and shortage of health workers (HW) in developing countries

- Potential and commonly seen strategies:
  - Integration of full-time equivalent (FTE) ART and HCT service providers to provide other services at the facility level
  - Decentralization
  - Task-shifting
  - Redistribution of HWs

Objective

- Analyze data on labor requirements to calculate patient loads for ART and HCT services that require a FTE
    - To see whether existing strategies for addressing HRH challenges are feasible given current practice
    - To see whether efficiency could be increased by modifying current practice with any of these strategies

Determine FTEs needed for ART/HCT by calculating standard FTE patient load

Data and Methodology

- Review of ART guidelines, interviews, and timing of patient visits (time-motion)
  - ART time-motion (new and continuing patients) data includes: 63 patients, 21 clinics, in 4 countries
  - HCT time-motion data includes: 29 patients, 18 clinics, in 4 countries
- Data source:

  USAID-funded HAPSAT analysis for Democratic Republic of Congo, Ethiopia, Guyana, and Sierra Leone
- Stratified sampling of health facilities took into account settlement type (urban/rural) and facility type (hospital, health clinic)

Data and Methodology (cont.)

Calculating number of patients a FTE HW for a specific service can treat over one year or <u>Standard FTE Patient Load</u>:

1) Time spent by HW on patient per year =

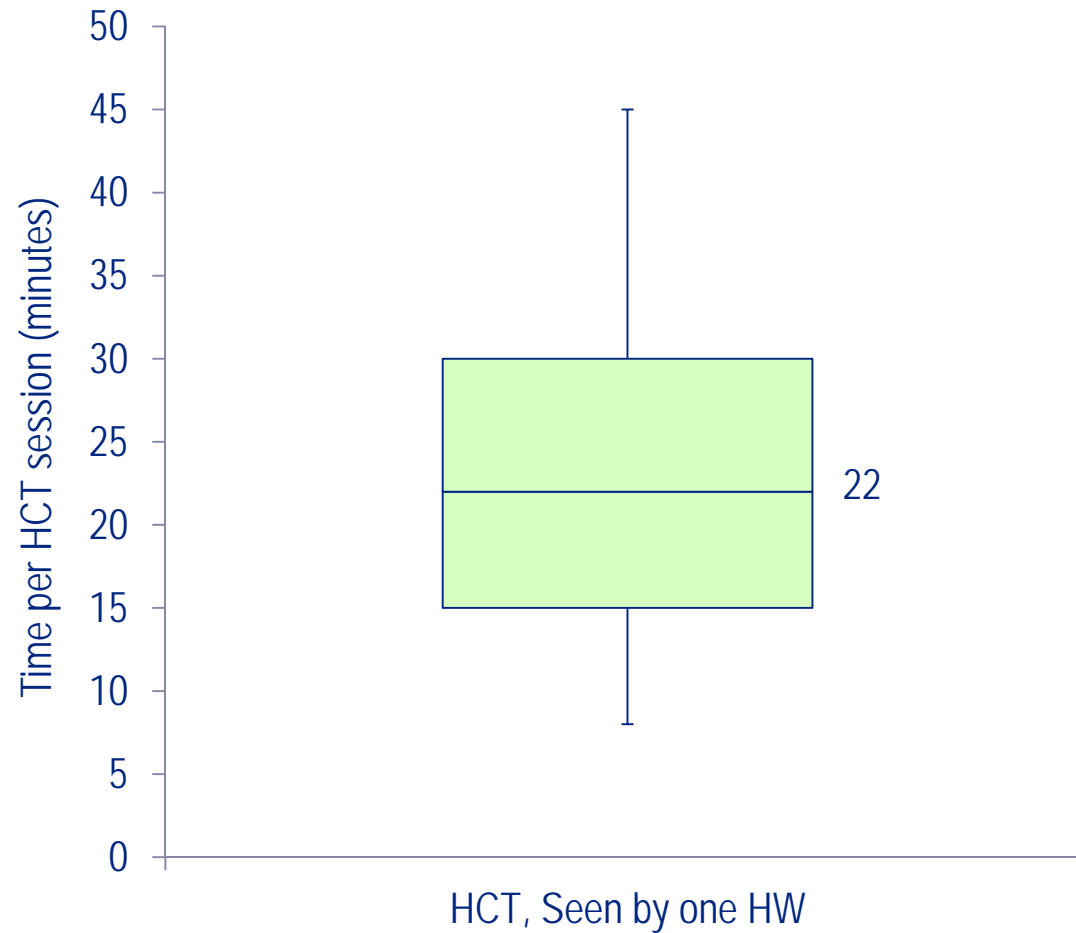   Average # of patient visits per year * Time spent by HW per patient visit

2) Standard FTE Patient load = # patients per year required for a FTE =

$$\frac{\text{Time per year spent working to provide health services}}{\text{Time spent by HW on patient per year}}$$
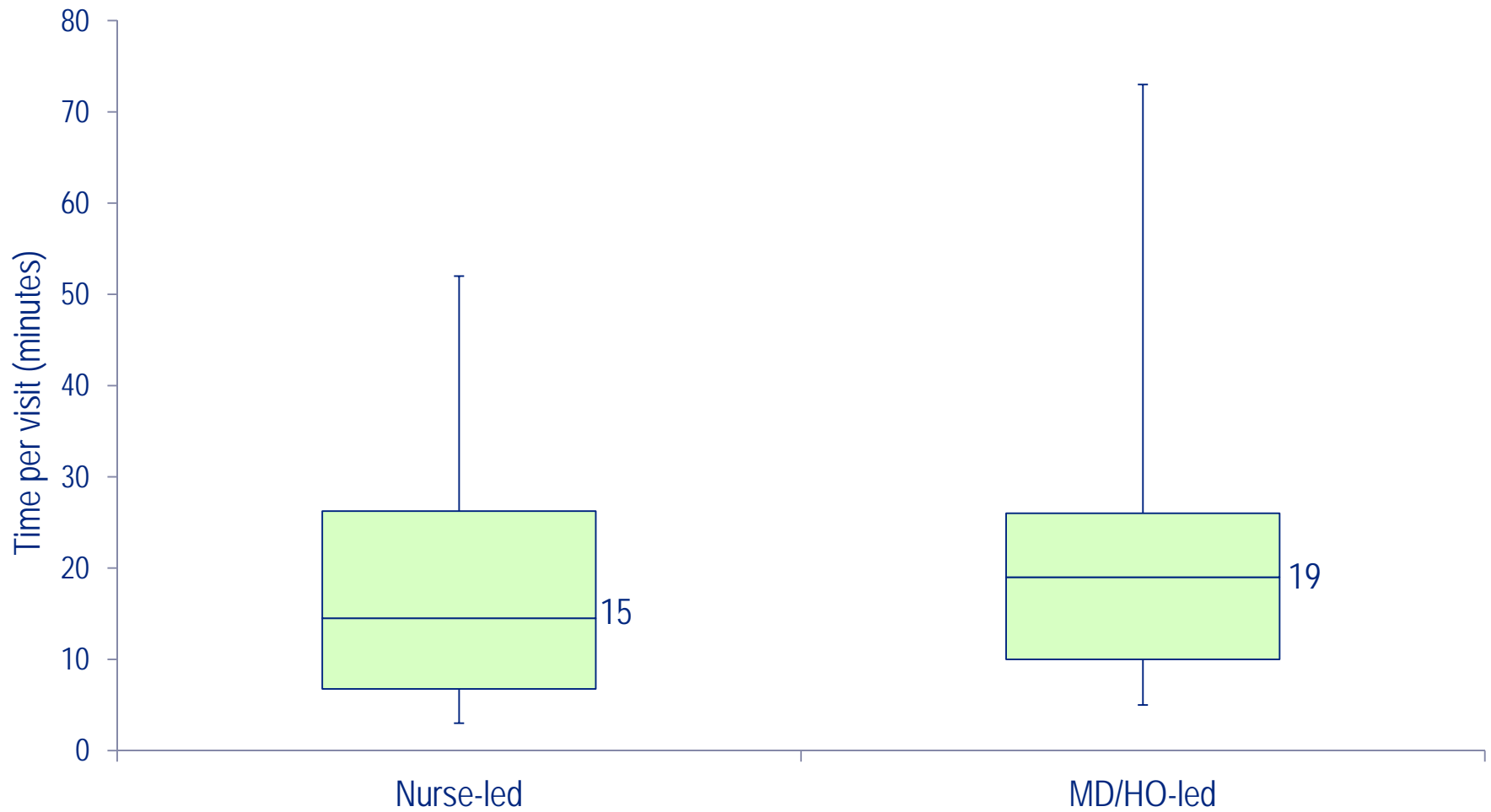
Results:
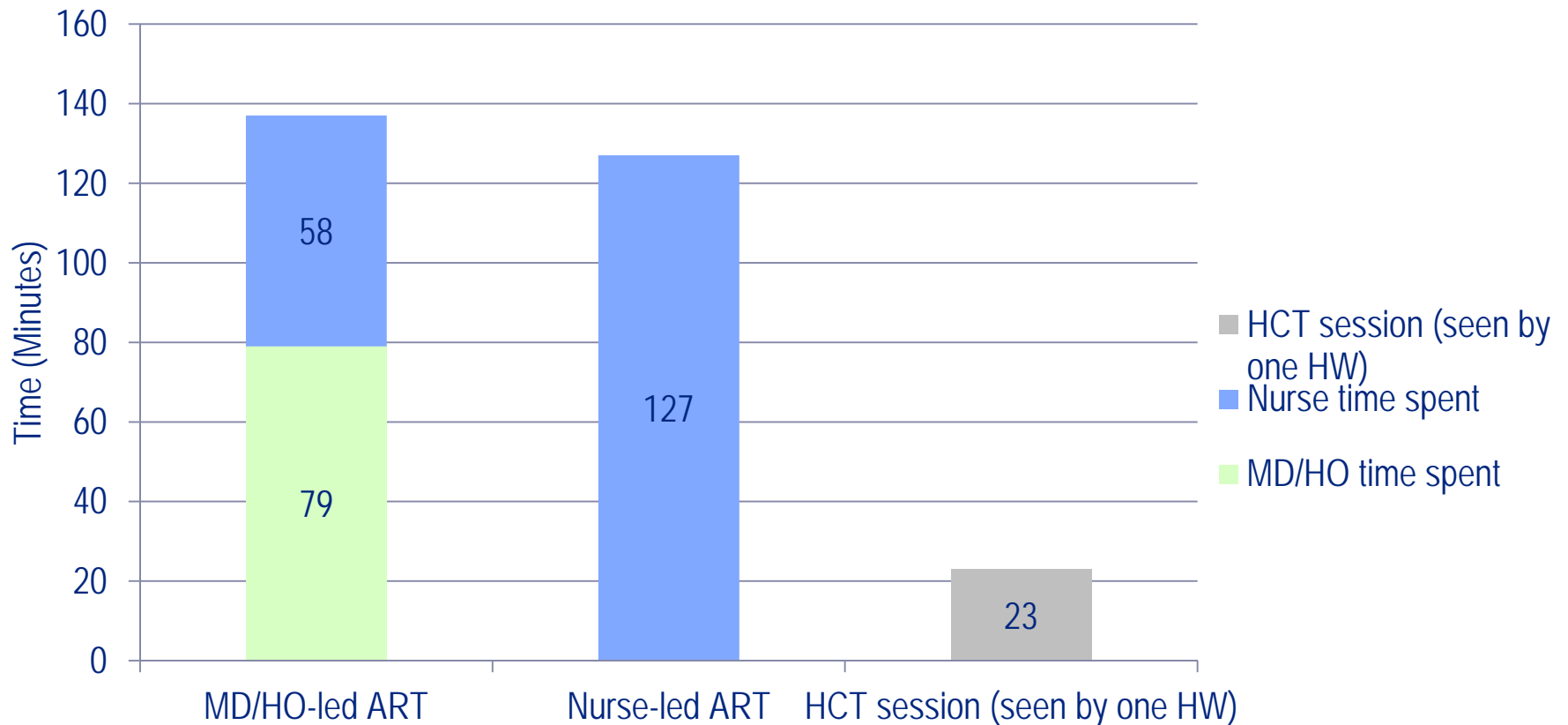## Quartile plots for observed time spent per HCT session

Results:

Quartile plots for observed time spent per ART patient visit, by model of delivery

Results:
Average time for ART and HCT services per patient per year

- Assumption: additional 40% of patient visit time for time spent beyond face-to-face visit (e.g. record review), based on interviews

Service	Delivery type	Work day hours	Standard FTE patient load per year
ART	MD/HO-led with Nurse team	6 hours	**1,000 patients** (MD/HO *and* Nurse) *Nurse has some additional time in this scenario*
		4 hours	**667 patients** (MD/HO *and* Nurse) *Nurse has some additional time in this scenario*
	Nurse-led	6 hours	**623 patients** (Nurse)
		4 hours	**416 patients** (Nurse)
HCT	Seen by one HW	6 hours	**3,408 patients**
		4 hours	**2,272 patients**

Data Limitations

- Cannot make quality comparisons for different delivery models
- Sampling not random and small number of observations
  - However, stratified selection taken into account; results reviewed and found credible by experienced service providers from study countries

Discussion and Conclusion

- Use assessment for more accurate planning of HRH needs based on estimated standard FTE patient loads → calculate additional FTEs required

$$\text{Additional FTEs required} = \frac{\text{Actual FTE patient load} - \text{Standard FTE patient load}}{\text{Standard FTE patient load}}$$

- Inform management decisions like
  - Integration
  - Task-shifting

A process for using workloads for HRH management

1
- Determine FTEs needed for ART/HCT

2
- Compare FTE requirements across different departments within the same facility

3
- Compare net FTE requirements across facilities within the same network or catchment area

Discussion and Conclusion
Future Operational Research

- Workload assessment: HIV program → Facility → Facility Networks
- More informed to make decisions to ↗ efficiency and address labor imbalances
  - E.g. integration, decentralization, task-shifting, redistribution of HWs across facilities
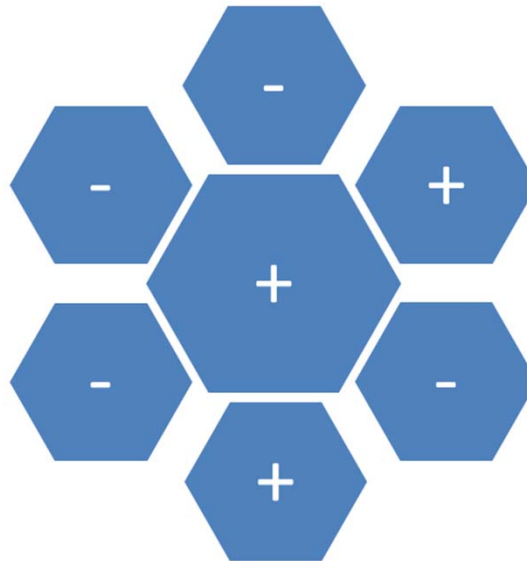
Figure: Illustration of labor imbalances in a health network

Thank you!

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